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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,402	04/15/2004	Youichi Akasaka	250980US8DIV	6414
22850	7590	02/21/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DIACOU, ARJ M	
			ART UNIT 3663	PAPER NUMBER
DATE MAILED: 02/21/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,402	AKASAKA ET AL.	
	Examiner	Art Unit	
	Ari M. Diacou	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-42 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. On 1-23-2006 applicant filed an election, it was non-responsive because the applicant failed to elect a species to prosecute. However upon review, the examiner noted that the requirement for restriction/election contained typographical errors which could cause confusion. In the interests of compact prosecution, the restriction/election requirement filed 12-22-2005 is withdrawn and the new restriction/election requirement follows below.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-19, and 35-38, drawn to a Raman optical amplifier, classified in class 359, subclass 334.
 - II. Claims 20-34, drawn to the method of operating a Raman laser, classified in class 372, subclass 3.
 - III. Claims 39-42, drawn to an optical transmission cable, classified in class 385, subclass 100.
3. Inventions II and I/III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as

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claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method may be used to operate a Raman medical laser.

4. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the signal repeater as claimed in claim 1 may use a fiber laser for pumping instead of semiconductor lasers as claimed in claim 39. The subcombination has separate utility such as in an optical communications network employing OTDR.

5. Upon election of one of the inventions I or II above, applicant is required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

- A. The species of amplifier operation as set forth in figure 7.
- B. The species of amplifier operation as set forth in figure 8.
- C. The species of amplifier operation as set forth in figure 9.
- D. The species of amplifier operation as set forth in figure 10.
- E. The species of amplifier operation as set forth in figure 11.

- F. The species of amplifier operation as set forth in figure 60.
- G. The species of amplifier operation as set forth in figure 65.
- H. The species of amplifier operation as set forth in figure 68.

6. Upon election of one of the inventions A, B, C, D, E, F, G, or H above, applicant is required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

- a The pumping direction as set forth in figure 1.
- b The pumping direction as set forth in figure 2.
- c The pumping direction as set forth in figure 3.

7. Upon election of one of species a, b or c above, applicant is required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

- (1) The method of pump control as set forth in figure 4.
- (2) The method of pump control as set forth in figure 5.

8. Upon election of one of species (1) or (2) above, applicant is required under 35 U.S.C. 121 to elect one of the following disclosed species for prosecution on the merits

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to which the claims shall be restricted if no generic claim is finally held to be allowable (currently, no claims are generic):

(A) The method of depolarization as set forth in figure

6A.

(B) The method of depolarization as set forth in figure

6B.

(C) No method of depolarization

9. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement (e.g. *I, D, a, (1), (C)*), listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over

the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

10. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

11. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

12. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ari M. Diacou whose telephone number is (571) 272-5591. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMD 2/16/2006


JACK KEITH
SUPERVISORY PATENT EXAMINER